



Product Datasheet

Product Name	Avidin
Cata No	CB501116
Source	<i>Hen's egg white.</i>
Synonyms	Avidin, AVD, AVID.

Description

Avidin is a tetrameric protein of 4 identical subunits (homotetramer) each of which can bind to biotin with a high degree of affinity and specificity. Avidin molecular weight in its tetrameric form is estimated to be between 66-69 kDa. Avidin is produced in the oviducts of birds, reptiles and amphibians and is subsequently deposited in the whites of their eggs. In the chicken egg white, avidin makes up roughly 0.05% of total protein (approximately 1.8 mg per egg). 10% of Avidin's molecular weight is ascribed to carbohydrate content which is composed of four to five mannose and three N-acetylglucosamine residues. Avidin has at least three distinctive oligosaccharide structural type which are similar in structure and composition. The dissociation constant (KD) of avidin is approximately 10-15M, making it one of the strongest known non-covalent bonds.

Avidin is a glycosylated polypeptide chain having a molecular mass of 68kDa and containing 4 subunits each with a binding site for biotin.

The Avidin is purified by affinity chromatographic techniques.

The purification procedure ensures minimal

contamination by other proteins or DNA.

The resulting high activity and purity of the product gives very low non-specific binding (NSB).

Physical Appearance

Sterile Filtered lyophilized powder.

Biological Activity

Greater than 11 U/mg, 1 unit binds 1µg biotin.

Reconstitution

It is recommended to reconstitute the lyophilized Avidin in sterile 18MΩ-cm H₂O not less than 100µg/ml or more than 10mg/ml solutions.

Stability

Avidin although stable at 4°C for 3 weeks, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Applications

Avidin may be used to visualize biotin conjugated molecules in ELISA, blotting and histological techniques.